

5

ABSTRACT OF THE INVENTION

The invention provides techniques for compensating for current leakage from a loop filter during off times of a PLL between on times of the PLL, e.g., when a cell phone is in paging mode. The leakage current is compensated by providing offsetting charge to ensure that the VCO tuning voltage when the PLL is turned from “off” to “on” is at or near the VCO tuning voltage when the PLL is locked (the VCO-lock voltage). Several techniques can be used to compensate for the leakage current and several techniques can be used to determine how accurately the leakage current is being compensated for, and what, if any, adjustments to make in the offsetting charge to adequately compensate for the leakage current.

15